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Inventor Name Search Result

Your Search was:

Last Name = JOCHEM
First Name = [Nothing Entered]

Application#	Patent#	Status	Date Filed	Title	Inventor Name
10247069	Not Issued	163	09/19/2002	Process for preparing polyoxyalkylene polyether products	JOCHEM BRONS, JEROEN FRANS
06159274	4370021	150	06/13/1980	A COUPLING ELEMENT FOR AN OPTICAL TRANSMISSION FIBER	JOCHEM, CORNELIS M. G.
06293719	4385916	250	08/17/1981	METHOD OF PRODUCING AN OPTICAL FIBER HAVING A CORE WHICH HAS A NONCIRCULAR CROSS-SECTION, AND DOUBLE CRUCIBLE FOR USE IN THIS METHOD	JOCHEM, CORNELIS M. G.
06470889	4490163	150	02/28/1983	METHOD OF MANUFACTURING A FIBER-OPTICAL COUPLING ELEMENT	JOCHEM, CORNELIS M. G.
06679329	Not Issued	166	12/07/1984	METHOD OF AND DEVICE FOR MANUFACTURING AN OPTICAL FIBRE HAVING A PROTECTIVE COATING	JOCHEM, CORNELIS M. G.
06780511	Not Issued	168	09/26/1985	METHOD OF AND ARRANGEMENT FOR COATING A FIBRE	JOCHEM, CORNELIS M. G.
06780512	4644898	150	09/26/1985	ARRANGEMENT FOR COATING OPTICAL FIBRES	JOCHEM, CORNELIS M. G.
06844051	4682853	150	03/26/1986	TRANSMISSION PROJECTION SCREEN AND METHOD OF MANUFACTURING SAME	JOCHEM, CORNELIS M. G.
06869630	Not Issued	161	06/02/1986	METHOD OF MANUFACTURING A SYNTHETIC-RESIN FIBRE AND A MOLECULARLY ORIENTED SYNTHETIC-	JOCHEM, CORNELIS M. G.

				RESIN FIBRE, AND A MOLECULARLY ORIENTED SYNTHETIC- RESIN FIBRE OBTAINED BY THIS METHOD	
06903008	4733941	150	09/02/1986	OPTICAL FIBRE COMPRISING A SYNTHETIC RESIN CLADDING AND METHOD OF AND DEVICE FOR MANUFACTURING SUCH AN OPTICAL FIBRE	JOCHEM, CORNELIS M. G.
06948469	Not Issued	166	12/29/1986	METHOD OF AND DEVICE FOR MANUFACTURING AN OPTICAL FIBER HAVING A PROTECTIVE COATING	JOCHEM, CORNELIS M. G.
07183451	Not Issued	166	04/14/1988	OPTICAL GLASS FIBRE HAVING A SYNTHETIC RESIN COATING AND CURABLE ELASTOMER FORMING MATERIAL	JOCHEM, CORNELIS M. G.
07418420	Not Issued	166	10/06/1989	METHOD OF MANUFACTURING AN OPTICAL FIBRE HAVING A HERMETIC COATING	JOCHEM, CORNELIS M. G.
07491573	Not Issued	166	06/12/1989	DEVICE FOR PERFORMING MEASUREMENTS ON A TRANSPARENT OBJECT, METHOD OF MANUFACTURING A FIBRE AND FIBRE MANUFACTURED BY MEANS OF SAID METHOD	JOCHEM, CORNELIS M. G.
07549675	5136679	150	06/29/1990	OPTICAL GLASS FIBRE HAVING A SYNTHETIC RESIN COATING AND CURABLE ELASTOMER FORMING MATERIAL	JOCHEM, CORNELIS M. G.
07607780	Not Issued	166	10/25/1990	DEVICE FOR PERFORMING MEASUREMENTS ON A TRANSPARENT OBJECT, METHOD OF MANUFACTURING A FIBRE AND FIBRE MANUFACTURED BY MEANS OF SAID METHOD	JOCHEM, CORNELIS M. G.
07639321	Not Issued	161	01/09/1991	METHOD OF MANUFACTURING AN	JOCHEM, CORNELIS M. G.

				OPTICAL FIBER HAVING A HERMETIC COATING	
06853295	4704307	150	04/17/1986	METHOD OF AND ARRANGEMENT FOR COATING A FIBRE	JOCHEM, CORNELIS M.G.
06880262	Not Issued	166	06/30/1986	OPTICAL GLASS FIBRE HAVING A SYNTHETIC RESIN COATING AND CURABLE ELASTOMER FORMING MATERIAL	JOCHEM, CORNELIS M.G.
07050174	4774104	150	05/13/1987	IRRADIATION DEVICE, ARRANGEMENT FOR AND METHOD OF CLADDING A FILAMENTARY BODY	JOCHEM, CORNELIS M.G.
07069746	4765271	150	07/02/1987	METHOD OF ARRANGEMENT FOR COATING A FIBRE	JOCHEM, CORNELIS M.G.
07115317	Not Issued	166	11/02/1987	DEVICE FOR PERFORMING MEASUREMENTS ON A TRANSPARENT OBJECT, METHOD OF MANUFACTURING A FIBRE AND FIBRE MANUFACTURED BY MEANS OF SAID METHOD	JOCHEM, CORNELIS M.G.
07251631	4904051	150	09/29/1988	OPTICAL FIBER PROVIDED WITH A SYNTHETIC RESIN COATING	JOCHEM, CORNELIS M.G.
07283003	4913715	150	12/08/1988	METHOD OF MANUFACTURING AN OPTICAL FIBER HAVING A PROTECTIVE COATING	JOCHEM, CORNELIS M.G.
07799698	5176731	150	11/25/1991	DEVICE FOR PERFORMING MEASUREMENTS ON A TRANSPARENT OBJECT, METHOD OF MANUFACTURING A FIBER AND FIBER MANUFACTURED BY MEANS OF SAID METHOD	JOCHEM, CORNELIS M.G.
06787234	4764691	150	10/15/1985	CMOS PROGRAMMABLE LOGIC ARRAY USING NOR GATES FOR CLOCKING	JOCHEM, DANIEL R.
60578004	Not Issued	159	06/08/2004	Container with lockable lid	JOCHEM, DAVE J.
09354618	6161736	150	07/16/1999	DISPENSER APPARATUS	JOCHEM, DAVID

60093130	Not Issued	159	07/16/1998	AEROSOL CAN LID	JOCHEM, DAVID
09105587	6047849	150	06/26/1998	LARGE-CAPACITY BEVERAGE CUP	JOCHEM, DAVID J
09833948	Not Issued	168	04/12/2001	Hinged container lid assembly	JOCHEM, DAVID J.
10006745	Not Issued	168	11/08/2001	Child-resistant package	JOCHEM, DAVID J.
10669198	Not Issued	41	09/24/2003	Method of producing a container closure	JOCHEM, DAVID J.
10669765	Not Issued	93	09/24/2003	CONTAINER CLOSURE	JOCHEM, DAVID J.
10804906	Not Issued	30	03/19/2004	Apparatus and method for producing decorated plastic product	JOCHEM, DAVID J.
10824753	Not Issued	41	04/15/2004	Drink cup and lid	JOCHEM, DAVID J.
10927333	Not Issued	20	08/26/2004	Paint container	JOCHEM, DAVID J.
11003640	Not Issued	20	12/03/2004	Mobile canister	JOCHEM, DAVID J.
11145916	Not Issued	20	06/06/2005	Container with lockable lid	JOCHEM, DAVID J.
11210085	Not Issued	20	08/23/2005	Drink cup and lid	JOCHEM, DAVID J.
60196871	Not Issued	159	04/12/2000	Hinged container lid assembly	JOCHEM, DAVID J.
60243055	Not Issued	159	10/25/2000	Process for injection molding a container	JOCHEM, DAVID J.
60268996	Not Issued	159	02/15/2001	Hinged container lid assembly	JOCHEM, DAVID J.
60356669	Not Issued	159	02/13/2002	Flip-top dispensing closure	JOCHEM, DAVID J.
60437101	Not Issued	159	12/30/2002	Container having expandable carrying handle	JOCHEM, DAVID J.
07983808	5337912	150	11/30/1992	STURDY AEROSOL CAN LID	JOCHEM, DAVID J.
08082982	5310074	150	06/25/1993	CANISTER WITH LID-RELEASE CONTROL MECHANISM	JOCHEM, DAVID J.
08235384	Not Issued	161	04/29/1994	TAMPER-RESISTANT OVERCAP	JOCHEM, DAVID J.
08625758	5788107	150	03/29/1996	TAMPER-RESISTANT CAP	JOCHEM, DAVID J.

				FOR A CONTAINER	
09103599	6112933	150	06/24/1998	TAMPER-RESISTANT CAP FOR A CONTAINER	JOCHEM, DAVID J.

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Last Name = JOCHEM
First Name = [Nothing Entered]

Application#	Patent#	Status	Date Filed	Title	Inventor Name
29015264	D353743	150	11/12/1993	CANISTER	JOCHEM, DAVID J.
09966760	6530505	150	10/01/2001	DISPENSING CONTAINER WITH ROTATABLE LID	JOCHEM, DAVID JOHN
09966761	Not Issued	123	10/01/2001	Circular dispensing container	JOCHEM, DAVID JOHN
29148911	D475618	150	10/01/2001	CIRCULAR DISPENSING CONTAINER	JOCHEM, DAVID JOHN
29168903	D484795	150	10/11/2002	CIRCULAR DISPENSING CONTAINER	JOCHEM, DAVID JOHN
60337663	Not Issued	159	11/07/2001	Container closure with soft grip	JOCHEM, DAVID JOHN
29148912	D472802	150	10/01/2001	RECTANGULAR DISPENSING CONTAINER	JOCHEM, DAVID JOHN
08499442	6797854	150	07/06/1995	PROCESS FOR DRYING A GASEOUS OR LIQUID MIXTURE WITH THE AID OF AN ADSORBER COMPOSED OF ALUMINA AND OF A MOLECULAR SIEVE	JOCHEM, GERARD
07554680	5032177	150	07/19/1990	METHOD AND APPARATUS FOR THE REMOVAL OF SLAG FROM A METALLIC MELT BATH IN A MELTING FURNACE	JOCHEM, HANS-OTTO
10454657	Not Issued	30	06/04/2003	Apparatus for refining a glass melt	JOCHEM, KLAUS
08845632	5878676	250	02/28/1997	BURNER AND FURNACE OPERATED WITH AT LEAST ONE BURNER	JOCHEM, MATTHIAS
10226933	6728608	150	08/23/2002	SYSTEM AND METHOD FOR THE CREATION OF A	JOCHEM, TODD

				TERRAIN DENSITY MODEL	
29133708	D468885	150	12/05/2000	FORK LIFT TRUCK	JOCHEM, ULRICH
07113444	Not Issued	161	10/28/1987	BIOELECTRICAL AND BIOIMPEDANCE SURVEILLANCE SYSTEM	JOCHEM, W. J.
07591838	5170801	150	10/02/1990	MEDICAL CAPSULE DEVICE ACTUATED BY RADIO-FREQUENCY (RF) SIGNAL	JOCHEM, WARREN J.
07826407	5167626	250	01/27/1992	MEDICAL CAPSULE DEVICE ACTUATED BY RADIO-FREQUENCY (RF) SIGNAL	JOCHEM, WARREN J.
10379504	Not Issued	161	03/04/2003	Luggage attachable infant carseat	JOCHEM, WENDY
06570207	4538927	250	01/12/1984	ELECTRICAL TEMPERATURE SENSOR, PARTICULARLY FOR FEVER THERMOMETER USE	JOCHEMCZYK, CLAUS
06219161	4374454	150	12/22/1980	METHOD OF MANUFACTURING A SEMICONDUCTOR DEVICE AND SEMICONDUCTOR DEVICE MANUFACTURED BY USING SAID METHOD	JOCHEMS, PIETER J. W.
06257672	4466171	150	04/24/1981	METHOD OF MANUFACTURING A SEMICONDUCTOR DEVICE UTILIZING OUTDIFFUSION TO CONVERT AN EPITAXIAL LAYER	JOCHEMS, PIETER J. W.
06344696	Not Issued	166	02/01/1982	SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME	JOCHEMS, PIETER J. W.
06627308	4535529	150	07/02/1984	METHOD OF MAKING SEMICONDUCTOR DEVICES BY FORMING AN IMPURITY ADJUSTED EPITAXIAL LAYER OVER OUT DIFFUSED BURIED LAYERS HAVING DIFFERENT LATERAL CONDUCTIVITY TYPES	JOCHEMS, PIETER J. W.

06657036	Not Issued	166	10/01/1984	SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME	JOCHEMS, PIETER J. W.
06823822	Not Issued	166	01/28/1986	HIGH-SPEED, LOW-POWER-DISSIPATION INTEGRATED CIRCUITS	JOCHEMS, PIETER J. W.
06883008	4724221	150	07/07/1986	METHOD OF MANUFACTURING HIGH-SPEED, LOW-POWER-DISSIPATION INTEGRATED CIRCUITS	JOCHEMS, PIETER J.W.
08498639	5670138	150	07/06/1995	MOUTH-CARE PRODUCTS	JOCHEMS, STEPHANUS A. G.
08731487	5892841	150	10/16/1996	PROCESS FOR AUTOMATIC DETECTION OF THE ASSESSABLE AREAS IN IMAGES OF MECHANICAL COMPONENTS	JOCHEMS, TILMAN
08914214	6058204	150	08/19/1997	PROCESS FOR THE AUTOMATIC DETECTION OF DEFECTS IN MECHANICAL PARTS HAVING COMPLEX GEOMETRY	JOCHEMS, TILMAN
08973560	Not Issued	18	02/12/1998	P-53 binding protein called mdmx and encoding sequences for said protein	JOCHEMSEN, AART-GERRIT
09155975	6315108	150	10/09/1998	CARRYING DEVICE FOR CARRYING A NUMBER OF PRODUCTS, AS WELL AS A SYSTEM PROVIDED WITH SUCH CARRYING DEVICE	JOCHEMSEN, CORNELIS J.
09700383	Not Issued	41	11/14/2000	Method and system for providing copy-protection on a storage medium and storage medium for use in such a system	JOCHEMSEN, ROBERT
09785581	Not Issued	93	02/16/2001	SYSTEM FOR AND METHOD OF ACCESSING BLOCKS ON A STORAGE MEDIUM	JOCHEMSEN, ROBERT
10028123	6757804	150	12/21/2001	METHOD AND SYSTEM FOR REDUCING FRAGMENTATION	JOCHEMSEN, ROBERT
10233450	Not Issued	94	09/03/2002	METHOD AND SYSTEM FOR READING DATA FROM AND	JOCHEMSEN, ROBERT

				WRITING DATA TO A MEMORY	
10244763	Not Issued	30	09/16/2002	Command set for removable rewritable computer storage	JOCHEMSEN, ROBERT
10502525	Not Issued	20	07/26/2004	Method for handling data, data storage system, file system and computer program product	JOCHEMSEN, ROBERT
10533735	Not Issued	20	05/04/2005	Method and device for persistent-memory mangement	JOCHEMSEN, ROBERT
10533752	Not Issued	20	05/04/2005	Storing bios in persistent system memory	JOCHEMSEN, ROBERT
10538211	Not Issued	20	06/09/2005	Methods and apparatus for improving the breathing of disk scheduling algorithms	JOCHEMSEN, ROBERT
10539521	Not Issued	19	01/01/0001	More user friendly time-shift buffer	JOCHEMSEN, ROBERT
10545651	Not Issued	19	01/01/0001	RTFS controls queue of requests from os	JOCHEMSEN, ROBERT
60432544	Not Issued	159	12/11/2002	Methods and apparatus for improving the breathing of disk scheduling algorithms	JOCHEMSEN, ROBERT
60435493	Not Issued	159	12/20/2002	More user friendly time-shift buffer	JOCHEMSEN, ROBERT
60540139	Not Issued	159	01/29/2004	Digital television system with rapid channel surfing	JOCHEMSEN, ROBERT

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Inventor Name Search Result

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Last Name = MANN
First Name = JEFFREY

Application#	Patent#	Status	Date Filed	Title	Inventor Name
10804906	Not Issued	30	03/19/2004	Apparatus and method for producing decorated plastic product	MANN, JEFFREY A.
10824753	Not Issued	41	04/15/2004	Drink cup and lid	MANN, JEFFREY A.
11210085	Not Issued	20	08/23/2005	Drink cup and lid	MANN, JEFFREY A.
29139593	D461369	150	04/03/2001	CUP	MANN, JEFFREY A.
06829102	Not Issued	161	02/14/1986	WATER PUMPS	MANN, JEFFREY F.
08773463	5816200	250	12/23/1996	WINDBOX WITH INTEGRAL TRUSS SUPPORT AND AIR ADMISSION, FUEL ADMISSION AND IGNITOR MODULES	MANN, JEFFREY S
09899008	6439136	150	07/03/2001	PULVERIZED SOLID FUEL NOZZLE TIP WITH CERAMIC COMPONENT	MANN, JEFFREY S.
11119942	Not Issued	30	05/03/2005	Multiple segment ceramic fuel nozzle tip	MANN, JEFFREY S.
08040765	5348272	150	03/31/1993	DAMPER WITH IMPROVED DRIVE SHAFT BEARING ASSEMBLY	MANN, JEFFREY S.
08313960	5490774	150	09/28/1994	OIL GUN MOUNTING FOR USE IN STEAM GENERATION BOILERS	MANN, JEFFREY S.
08577610	6003793	150	12/22/1995	BOUNDARY LAYER COAL NOZZLE ASSEMBLY FOR STEAM GENERATION APPARATUS	MANN, JEFFREY S.
29097053	D414859	150	11/27/1998	SINGLE-PIECE GRATE BAR KEY FOR STOKERS	MANN, JEFFREY S.

				FEEDING STEAM GENERATOR FURNACES	
10762624	Not Issued	61	01/22/2004	Riffle distributor assembly for a fossil fuel fired combustion arrangement	MANN, JEFFREY SCOTT
10829878	6959653	150	04/22/2004	FUEL NOZZLE FOR A FOSSIL FUEL FIRED COMBUSTION ARRANGEMENT	MANN, JEFFREY SCOTT
09853440	6607500	150	05/10/2001	INTEGRATED CAST AND MUSCLE STIMULATION SYSTEM	MANNHEIMER, JEFFREY S.
09854297	Not Issued	161	05/10/2001	Two part tens bandage	MANNHEIMER, JEFFREY S.
10208223	Not Issued	71	07/30/2002	Combination electrode-battery assembly for a miniature wireless transcutaneous electrical neuro or muscular-stimulation unit	MANNHEIMER, JEFFREY S.
06390026	Not Issued	161	06/18/1982	BIOLOGICAL ELECTRICAL STIMULATORS	MANNHEIMER, JEFFREY S.
06506116	4561851	250	06/20/1983	APPARATUS FOR DEMONSTRATING AND/OR TEACHING ALLEVIATION OF PAIN WITH TRANSCUTANEOUS ELECTRICAL NERVE STIMULATORS	MANNHEIMER, JEFFREY S.
06653864	Not Issued	161	09/21/1984	BIOLOGICAL ELECTRICAL STIMULATORS	MANNHEIMER, JEFFREY S.
06782405	Not Issued	161	10/01/1985	BIOLOGICAL ELECTRICAL STIMULATORS	MANNHEIMER, JEFFREY S.
06855420	Not Issued	161	04/23/1986	BIOLOGICAL ELECTRICAL STIMULATORS	MANNHEIMER, JEFFREY S.
09350426	6445955	150	07/08/1999	MINIATURE WIRELESS TRANSCUTANEOUS ELECTRICAL NEURO OR MUSCULAR-STIMULATION UNIT	MANNHEIMER, JEFFREY S.
10998268	Not Issued	30	11/26/2004	High-gain diode-pumped laser amplifier	MANNI, JEFFREY G.
07585848	5225001	150	09/19/1990	SINGLE CHANNEL SCOPE CLEANING METHOD AND APPARATUS	MANNI, JEFFREY G.
09902453	Not	95	07/10/2001	SYSTEMS AND METHODS	MANNI, JEFFREY

	Issued			FOR SPECKLE REDUCTION THROUGH BANDWIDTH ENHANCEMENT	GLENN
60217131	Not Issued	159	07/10/2000	Bandwidth-enhanced arrays of RGB lasers, system and method	MANNI, JEFFREY GLENN
60457962	Not Issued	159	03/28/2003	Broadly tunable visible optical parametric amplifier system	MANNI, JEFFREY GLENN
07345819	4918963	150	05/01/1989	RETRACTABLE ROLLING MILL INSTRUMENTATION PLATFORM	MANNING, JEFFREY L.
09838535	6872270	150	04/19/2001	BUBBLE PACK CUSHIONED COMPOSITE, METHOD OF MAKING AND ARTICLE MADE THEREFROM	MANNING, JEFFREY W.
07645383	Not Issued	169	01/24/1991	SYNCHRONIZATION METHOD AND APPARATUS FOR A WIRELESS PACKET NETWORK	MANNING, JEFFREY W.
08165782	5517505	150	12/13/1993	SYNCHRONIZATON METHOD AND APPARATUS FOR A WIRELES PACKET NETWORK	MANNING, JEFFREY W.
10052210	Not Issued	83	01/16/2002	Suspended containers	MANNION, JEFFREY T.
10622005	Not Issued	41	07/16/2003	Suspended containers	MANNION, JEFFREY T.
10983975	Not Issued	20	11/08/2004	Suspended containers	MANNION, JEFFREY T.
29135698	D469020	150	01/16/2001	CONTAINER	MANNION, JEFFREY T.
60262030	Not Issued	159	01/16/2001	Ornamental designs and utilitarian features for disposable packaging and consumable products	MANNION, JEFFREY T.
60378399	Not Issued	159	05/06/2002	Suspended containers and products	MANNION, JEFFREY T.
60397329	Not Issued	159	07/18/2002	Suspended containers	MANNION, JEFFREY T.
60399195	Not Issued	159	07/29/2002	Suspended containers	MANNION, JEFFREY T.
60509610	Not Issued	159	10/08/2003	Suspended containers for consumer products	MANNION, JEFFREY T.

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First Name = MILAN

Application#	Patent#	Status	Date Filed	Title	Inventor Name
10804906	Not Issued	30	03/19/2004	Apparatus and method for producing decorated plastic product	MARAVICH, MILAN C.
10824753	Not Issued	41	04/15/2004	Drink cup and lid	MARAVICH, MILAN C.
11210085	Not Issued	20	08/23/2005	Drink cup and lid	MARAVICH, MILAN C.

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L8: Entry 1 of 1 File: USPT Jul 5, 1994

DOCUMENT-IDENTIFIER: US 5326520 A
TITLE: Laminating film to plastics extrudate and cornering extrudate with selected radii

Abstract Text (1):
A thin ribbon of paint film is guided and applied directly to hot thermoplastics extrudate just as it exits the extrusion die by a film curving and guide plate and then by a film application wheel that is adjusted so that the film mates with and is laminated to the extrudate with an adhesive bond between the paint film substrate and the extrudate. This eliminates the need for high gloss, high metallic content thermoplastics for use as extrudate such as currently used for finished automotive side molding and allows reground thermoplastics to be used as the extrudate and finished with a paint film covering. The thermoplastic extrusion molding is then compression formed in a preform operation to establish end corners with selected radii for corner sharpness as well as reshape the part cross section. This is accomplished with a die and end cap construction which can be relatively adjusted to provide effective gas venting around the end of the die cavity on die closure.

Brief Summary Text (2):
This invention relates to methods and mechanisms for applying paint film to profiled polymeric material and for pressure forming the extrudate with or without film so that the corner radii of the end thereof can be selectively adjusted over a corner range from well rounded to very sharp corners.

Brief Summary Text (4):
Prior to the present invention, thin films of thermoplastic material, such as cast paint film, have been widely utilized in a variety of laminating applications, such as for printing and packaging. In more limited applications, paint films have been applied to plastic bodies such as molded profiled strips of thermoplastics for body moldings for automotive vehicles. The use of such moldings has been limited in view of the initial cost of the paint film and the frequent rejection of molded parts because of wrinkles, distortions and stretch lines in the applied film which detracted from the appearance and acceptability of the finished body molding. Additionally, because of difficulty in securely laminating the paint film to the profiled strip, problems of de-lamination of the film occurred when the body moldings were subjected to severe environments associated with vehicle use.

Brief Summary Text (8):
This invention allows the employment of an inexpensive polymeric thermoplastic base substrate material, such as recycled polyvinyl chloride (PVC), having no particular color or finish and which, after lamination of a paint film thereto and compression molding of discrete sections in the continuous strip, provides a quality finished part, such as a protective molding for vehicle body panels, of a desired color, gloss or finish. The base material is smooth and continuous as it is extruded. The film conceals minor blemishes and imperfections that may occur. Color can be readily changed by changing the paint film to the desired color while the base material color remains the same or can be of any color. With paint film properly

applied to the extrudate, consistent high gloss and metallic flake distribution is provided for the finished part. If the part is applied to a vehicle or other body, color match is easier to obtain because the match color is in the paint film and not the base or substrate material.

Brief Summary Text (10):
Among the objects of this invention are to provide new and improved methods and mechanisms for continuously applying films to continuously extruded thermoplastic substrates and subsequent forming in a manner that: (1) eliminates or sharply reduces film wrinkles and provides a smooth finish to extrudate, (2) coats the thermoplastic extrudate of irregular colored or clear plastics so that a finely finished composite is formed with a uniform show color, (3) augments quantity production, and (4) provides a new and improved paint film apply mechanism and method to apply and laminate such film to extrudate as it is being extruded from a die.

Drawing Description Text (2):
FIG. 1 is a diagrammatic side view of a machine for laminating paint film to extrudate, and a compression molding unit for reforming the film/extrudate laminate and for effecting the precisioned end cornering of the extrudate over a wide range of radii;

Drawing Description Text (3):
FIG. 2 is a pictorial view of a portion of the machine of FIG. 1 for laminating paint film to extrudate;

Drawing Description Text (4):
FIG. 3 is a sectional view taken generally along sight lines 3--3 of FIG. 1 showing the application of paint film to plastic extrudate;

Drawing Description Text (5):
FIG. 4 is a pictorial view of a feeder and guide mechanism to guide and curve paint film to fit the profile of the extrudate;

Detailed Description Text (3):
Immediately after the hot extrudate 16 with its smoothly rounded, convex upper surface exits from the extrusion die, a thin ribbon of a multilayer painted thermoplastic film 24, fed from a support mounted film supply roll 26 and routed across idler pulley 28, is guided and shaped by a feed and guide plate 30 so that the paint film is aligned with and curved to correspond with the line and profile of the extrudate.

Detailed Description Text (5):
FIG. 4 illustrates the fill guide plate 30 in greater detail. This guide plate is fabricated from sheet steel having a flat entrance 32 and is convexly and progressively increased in curvature to the exit end 34 of the guide plate which is positioned just above the paint film apply wheel 38. The opposite edges 40 and 42 of the guide plate are rolled inwardly to provide side guides to positively retain the film in the convexly curved guide plate.

Detailed Description Text (7):
The PVC extrudate has a temperature in the range of about 300.degree. F. to 350.degree. F. and the unheated film is applied to the extrudate under load by apply wheel 38. The substrate layer of calendared-PVC of the paint film readily laminates with a strong adhesive bond to the extrudate. Because the film has been initially curved by the guide plate and subsequently stretched by the contoured apply wheel 38 onto the convex profile of the extrudate (FIG. 3), this lamination is achieved without wrinkles or surface imperfections in the film.

Detailed Description Text (14):

FIG. 3 shows the extrudate 16 with its outer face convexly curved with the paint film 24 laminated thereto. The extrudate can be made from a grind of recycled PVC or other recyclable thermoplastics material, and the apply wheel stretches the film bi-axially along the width and length thereof as it passes through the apply wheel so that the film is evenly applied and bonded to the extrudate without being torn or wrinkled. Any minor imperfections in the outer surface of the extrudate are covered by the film without being apparent. Furthermore, our practice of continuously preshaping and stretching the decorative film over the curved extrudate surface results in a more smooth and continuous lamination that better undergoes the subsequent compression molding operation.

Detailed Description Text (15):
After leaving the apply wheel and while still at a temperature above 300.degree. F., the PVC extrudate 16 with the paint film laminated thereto is compression molded by a pair of cooled (-10.degree. F.) mold halves 78 and 80. In this example, the molds 78 and 80 shape the composite film and extrudate into discrete vehicle side molding sections 82 with uniform flat end walls 83 and sharp corners 84 formed on at least one of the ends of each section. In the molding section 82 that is depicted, the profile of the whole length of the section 82 has been compression molded and flattened (FIG. 9) as compared to its extruded profile (FIG. 3). In other embodiments, molds like 78 and 80 may only be employed to form the end of each molding section 82. The high compression loads directed onto the paint film and extrudate enhances the adhesive bonding therebetween to such a point that the film and extrudate become unitized to minimize possibility of delamination.

CLAIMS:

1. A method of continuously applying a decorative strip having a show surface to a shaped surface of a continuously die extruded thermoplastic extrudate strip while the extruded strip is at a thermoformable temperature above ambient temperature, comprising:

advancing an unheated decorative film strip parallel to and overlying the shaped surface of the extruded strip,

passing said decorative film through a guide plate so as to progressively preshape the film across its width to the shape of said shaped surface of said extruded strip while maintaining said show surface of said film outboard of said guide plate, and then

continuously pressing the preshaped film against the shaped surface of the extrudate at a fixed distance from the extrusion die to continuously bring it into coextensive engagement with the extrudate and bonding the film in lamination thereto.

2. A method of continuously applying a thermoplastic decorative strip having a show surface to a curved surface of a continuously extruded thermoplastic extrudate strip while the extruded strip is at a thermoformable temperature above ambient temperature, comprising:

advancing a continuous unheated decorative film in the direction of flow of the extruded strip,

passing said decorative film through an elongated guide plate so as to progressively curve and preshape the film across its width to a shape corresponding to the curved shape of said surface of the extrudate while maintaining said show surface of said film outboard of said guide plate, and then

pressing the shaped film into engagement with the curved surface of the extrudate with a applicator roller having a rolling surface complementary in shape to the

underlying extrudate surface, the advancing film being tensioned between the applicator roller and an upstream idler roller, the tensioning and shaping of the decorative film and the pressure of the applicator roller cooperating to continuously bring it into smooth, coextensive engagement with the extrudate and bonding the above ambient temperature extrudate coextensively in lamination with the applied film.

4. A paint film apply machine for an extruder which has an extrusion die for generating an elongated strip of heated extrudate having a predetermined profile,

said machine having a supply of ribbon-like paint film provided with a show surface and a width for coating at least a portion of the width of said extrudate,

an elongated film guide plate means for initially guiding said film in a flat configuration into said guide plate means and toward the profiled surface of said extrudate and afterwards progressively curving said film with said show surface located outboard of said film guide plate means so that it can fit the profile of said extrudate when it exits said guide plate means, and

film apply means provided with a curved surface for forcing said curved film into contact with said profiled extrudate so that the substrate of said film chemically bonds to said heated extrudate.

5. The paint apply machine of claim 4, wherein said film guide plate means has opposing edge means to keep the film on said film guide plate means as said paint film moves thereon for subsequent laminating with said extrudate, and said film guide plate means having a convexly curved support surface so that the substrate of the film moving thereacross is concavely formed for subsequent lamination with said heated extrudate.

6. The machine of claim 4, wherein said film apply means is an apply wheel which rolls the curved paint film onto the heated extrudate so that said paint film laminates with said extrudate.

10. A method for making finish moldings having a finished show surface for application to support surfaces comprising the steps of:

extruding a profiled strip of heated plastics base material,

passing a paint film of plastics material through a guide plate for guiding and progressively preforming said paint film of plastics material into a shape for fitting on said heated and profiled strip while maintaining said show surface of said paint film outboard of said guide plate as said strip is extruded,

applying said preformed paint film onto said profiled strip so that it laminates directly thereto and so that said strip and film form a composite with said film providing a finish coat therefor, and

compression forming said composite with a multi-part die so that said composite is finished with a squared corner at one end within a predetermined range of corner radii.

11. A mechanism for making moldings of predetermined lengths with a squared end corner and having a finished show surface for attachment to support surfaces comprising:

plastics extrusion means for extruding a profiled strip of heated plastics material,

a supply of paint film,